



I-87041W

32-ch Sink-type Open Collector Isolated Digital Output Module

I-87041PW

32-ch Sink-type Open Collector Isolated Digital Output Module with Self Protection

Features

- 32-channel Open Collector Output
- Sink-type Digital Output
- Short circuit, Overvoltage and Overload Protection for I-87041PW
- 4 kV ESD Protection
- 3750 Vrms Intra-module Isolation, Field-to-Logic
- Dual Watchdog
- Configurable Power-on Value and Safe Value
- Open Daughter Board Detection



Introduction

The I-87041W/I-87041PW module offers 32 Digital Output channels, each of which features Photocouple isolation and supports sink-type output using an open collector. The I-87041W/I-87041PW includes 32 LED indicators that can be used to monitor the status of the Digital Output channels, and options are available for configuring both power-on and safe values. 4 kV ESD protection and 3750 Vrms intra-module isolation is provided as standard. The I-87041W/I-87041PW can be paired with a daughterboard, such as the DN-37-381-A for easy wiring or the DN-8K32R for relay output.

The I-87041PW integrates over-current, over-voltage and short-circuit functionality. ICP DAS recommends selecting either the "PW" version of the digital output module for industrial use.

System Specifications

Model	I-87041W	I-87041PW
COM Ports		
Interface	RS-485	
Data Format	N, 8, 1	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
LED Indicators/Display		
System LED Indicators	1 as Power/Communication Indicator	
I/O LED Indicators	32 as Digital Output Indicators	
Isolation		
Intra-module Isolation, Field-to-Logic	3750 Vrms	
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal	±8 kV Contact for each Terminal
	±8 kV Contact for Random Point	±16 kV Contact for Random Point
Power		
Power Consumption	1.7 W Max.	
Mechanical		
Dimensions (W × L × H)	30 mm × 115 mm × 85 mm	
Environment		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-40 ~ +85 °C	
Humidity	10 ~ 95 % RH, Non-condensing	



I-87041W, I-87041PW with DN-37-381-A and DB37 Male to Female Cable (Optional)

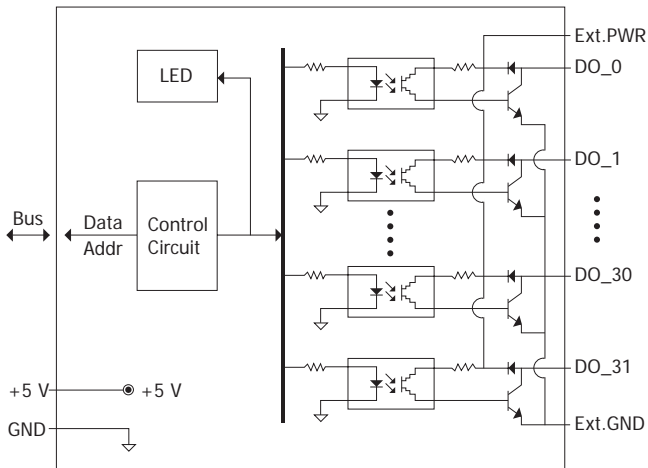


I-87041W, I-87041PW with DN-8K32R and DB37 Male to Female Cable (Optional)

I/O Specifications

Model	I-87041W	I-87041PW
Digital Output		
Channels	32	
Type	Open Collector	
Sink/Source (NPN/PNP)	Sink	
Load Voltage	+5 ~ +30 VDC	+5 ~ +50 VDC
Max. Load Current	100 mA/Channel	200 mA/Channel
Overvoltage Protection	-	60 VDC
Overload Protection	-	1.1 A
Short-circuit Protection	-	Yes
Power-on Value	Yes	
Safe Value	Yes	

Internal I/O Structure



Wire Connections

Output Type	ON State Readback as 1	OFF State Readback as 0
Resistance Load		
Inductive Load		

Accessories

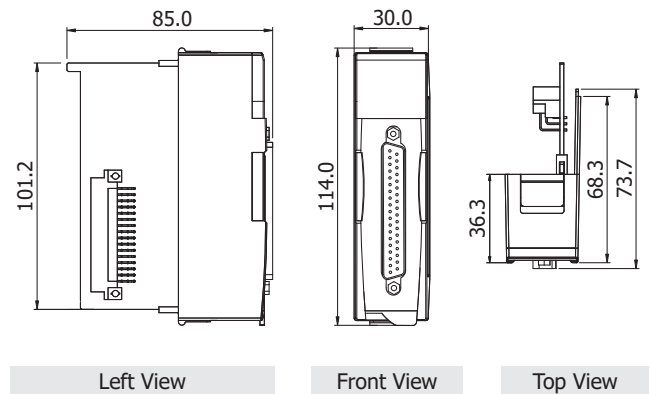
DN-8K32R CR	32-channel Relay (Form A, 3A) Output Board (Pitch = 3.81 mm) with DIN-rail Mounting (RoHS) Include : CA-3705A (DB37 Male-Female, 0.5M)
DN-37-A CR	Female DB37 to Screw Terminal Board (Pitch = 5.08 mm) with DIN-rail Mounting (RoHS) Include: CA-3710A (DB37 Male-Female, 90°, 1M)
DN-37-381-A CR	Female DB37 to Screw Terminal Board (Pitch = 3.81 mm) with DIN-rail Mounting (RoHS) Include: CA-3710A (DB37 Male-Female, 90°, 1M)
CA-3705A CR	DB37 Male-Female Cable, 90°, 0.5 m (RoHS)
CA-3710A CR	DB37 Male-Female Cable, 90°, 1.0 m (RoHS)
CA-3715A CR	DB37 Male-Female Cable, 90°, 1.5 m (RoHS)
SG-770 CR	7/14 channel Surge Protector (RoHS)

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
Ext.PWR	19	37 Ext.PWR
Ext.GND	18	36 Ext.GND
Ext.GND	17	35 DO_31
DO_15	16	34 DO_30
DO_14	15	33 DO_29
DO_13	14	32 DO_28
DO_12	13	31 DO_27
DO_11	12	30 DO_26
DO_10	11	29 DO_25
DO_9	10	28 DO_24
DO_8	09	27 DO_23
DO_7	08	26 DO_22
DO_6	07	25 DO_21
DO_5	06	24 DO_20
DO_4	05	23 DO_19
DO_3	04	22 DO_18
DO_2	03	21 DO_17
DO_1	02	20 DO_16
DO_0	01	

37-pin Male D-Sub Connector

Dimensions (Units: mm)



Ordering Information

I-87041W-G CR	32-channel Sink-type Open Collector Isolated Digital Output Module using the DCON Protocol (RoHS)
I-87041PW-G CR	32-channel Sink-type Open Collector Isolated Self Protected Digital Output Module using the DCON Protocol (RoHS)